(b) if so, the reasons for non-filling of the required percentage of reserved vacancies for SCs/STs; and

(c) what steps Government are contemplating to fill the quota reserved for SCs/STs, as backlog?

THE MINISTER OF STATE IN THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT (SHRI JAYSINGRAO GAIKWAD PATIL): (a) to (c) The Delhi University is following the reservation policy for SCs/STs in appointments to the teaching posts at the Lecturers level. The University has adopted post-based roster and has already made a special drive for filling up of SC/ST vacancies of Lecturers.

Preparation of new curriculum by NCERT

5134. SHRI DRUPAD BORGOHAIN: Will the Minister of HUMAN RESOURCES DEVELOPMENT be pleased to state:

(a) the details of the new curriculum proposed by NCERT;

(b) what prompted this change; and

(c) what are the topics to be removed as proposed by NCERT?

THE MINISTER OF STATE IN THE MINISTRY OF HUMAN RESOURCES DEVELOPMENT (SHRI JAYSINGRAO GAIKWAD PATIL): (a) to (c) NCERT has initiated a process of renewal of the National Curriculum Framework as a follow-up of the Programme of Action, 1992 under the National Policy on Education (NPE) 1986, and advice given under the 9th Plan. NCERT has recently prepared a "Discussion Document" on the "National Curriculum Framework for School Education " and released it in January, 2000 for public debates. This document is being discussed and debated at National and State levels. Once the Curriculum Framework is finalised, the exercise of preparation of guidelines for development of syllabi/curriculum would be undertaken.

Sea bed mining technology

5135. SHRI R.S. GAVAI:
SHRI RAMDAS AGARWAL:
SHRI PARMESHWAR KUMAR AGARWALLA:

Will the Minister of OCEAN DEVELOPMENT be pleased to state:

(a) whether Government have achieved a break-through in sea bed mining technology;

(b) if so, the details thereof;

(c) by when commercial mining would start with this technology and what would be its financial viability;

(d) the details of the metals explored under polymetallic nodules programmes so far, item-wise; and

(e) the expenditure incurred on this programme?

THE MINISTER OF OCEAN DEVELOPMENT (DR. MURLI MANOHAR JOSHI): (a) to (c) Under a joint technology demonstration programme for development of Deep Sea Mining System with Institute for Konstruction (IKS), University of Siegen, Germany, the Department of Ocean Development through its autonomous institution namely National Institute of Ocean Technology, has designed a crawler mounted mining system with special rubber tracks, umbilical cable with an outer steel armour which carries the weight of the vehicle during launch and retrieval and transmits power and signals to the system during operation, a number of transducers for monitoring the speed, direction, stability, pump performance etc., special under water cameras to observe the mining area, etc. The design of the crawler also involves complex integration of mechanical, electrical and instrumentation technologies and is a break through providing a firm basis for the development of a Deep Sea Mining System. While the system in its final form will be capable of operating up to 6,000 m water depth, in the initial stages the system has been successfully demonstrated at a depth of 410 m off Tuticorin in the east coast during March, 2000. It is likely to take about 5 years from now on to establish its technical capabilities, commercial and economic viability.

(d) An area of 150,000 sq. km. allotted by the International Sea Bed Authority of the United Nations in the Central Indian Ocean Basin (CIOB) to India as a Pioneer Investor in polymetallic nodules programme has been surveyed. As per estimates made though this exploratory survey there is a potential of about 380 million tones of nodules in CIOB mine site allotted to India, comprising about 3 million tones of copper, 3.2 million tones of nickel, 0.49 million tones of cobalt and 73 million tones of manganese, which could be exploited by developing suitable sophisticated deep sea mining technologies.

(e) For this shallow bed mining technology development programme a sum of about Rs. 15.00 crore has been spent so far, during the 9th Plan period.